CHAPTER 80 - AIRCRAFT

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81 ORDERING AIRCRAFT

Fire
All aircraft for IA will be ordered by use of the "AIRCRAFT" or "INITIAL ATTACK" resource order form.

The form to utilize will depend on fire complexity, including, but not inclusive of, current and expected fire behavior, fire size, current BI/ERC, number of resources ordered, and if the fire is expected to go into extended attack. The form will be filled out with as much information available, make sure lat/long, air contact (if other aircraft in area), ground contact, and A-A/A-G frequencies are entered. **Notify neighboring agencies if the flight will be within 5 miles of our boundaries**. This information can be obtained from the IC and/or PIR.

Project/Air Patrol/Other

Requests for aircraft used for project work and other missions not related to IA will be ordered by use of the "AIRCRAFT REQUEST ORDER FORM". Requests are to be submitted before 15:00 for the next day's assignment.

Ensure all information requested on the form is accurate and complete; this is a must!! Have the form in front of you and ask the questions! Route the request form through the IA supervisor, who will then forward it to the FAO.

81.1 AIRTANKERS

Locations and Availability

Requests for retardant will generally come from the IC or duty officer. It is the dispatcher's responsibility to inform the above as to the nearest air tankers and the estimated time of arrival (ETA). Each day the Aircraft dispatcher will update the status and type of air resources available within a reasonable distance for IA. For the Central Idaho area, air tankers are tracked at McCall, Boise, Missoula, Grangeville, West Yellowstone, and Pocatello.

Additional Ordering Concerns
Most orders for air tankers will come from the IC; however, some duty officers require their approval before retardant is ordered. This will vary not only from zones and districts, but also may be dependant on the current BI/ERC. At the upper adjective ratings (Very High and Extreme), some duty officers will request retardant as an automatic response or will give the IC full authority to order what she/he deems
necessary. Check the Initial Attack Dispatch Guides for the agency in the zone you are working. It is the responsibility of each zone dispatcher to ascertain what procedures to follow; ask the duty officers or supervisor.

81.2 LEADPLANES/AIR TACTICAL

Responsibility
Aviation operations on incidents are often conducted under extremely adverse flight conditions. Congested airspace, reduced visibility, adverse weather conditions, and mountainous terrain all add to the complexity of aircraft operations over an incident. Fire situations and/or fire complexities will dictate the level of supervision required to safely and effectively conduct aerial operations.

As a dispatcher, you are responsible for ensuring that policies are applied and limitations are not exceeded. Lead plane pilots (ATCO), air tactical group supervisors (ATGS) and air tanker base managers all share this responsibility and are reliable sources for policy information and air space coordination.

Lead plane Required/Ordered

A lead plane will be ordered with all air tanker ordered by CIC.

Lead planes shall be utilized in the following conditions:

A. Retardant drops in populated/congested areas always require the use of a lead plane.

B. Retardant drops on an ongoing fire utilizing two or more air tankers require the use of a lead plane when it is available.

C. Retardant drops on a complex fire with a variety of air resources that may be operating simultaneously (air tankers, smokejumper aircraft, and helicopters) require the use of a lead plane when it is available.

Lead planes will usually be dispatched any time air tanker resources are dispatched to a fire if they are available at the tanker base. Initial attack by a qualified initial attack air tanker pilot should not be delayed, however, because of a lack of a lead plane in the area.

Lead Plane/Air Tactical Required:

Either a Lead Plane or an Air Tactical Group Superviser are **required on scene** during the period from 30 minutes prior to official sunrise to 30 minutes after official sunrise and the period from 30 minutes prior to official sunset to 30 minutes
after official sunset.
(Note: If the above time frames and resourse requirements can not be met, Air Tankers should not be dispatched)

Air Tactical Group Superviser (ATGS):

Should order an ATGS in addition to lead plane when:

A. Two or more Air Tankers are involved in a sustained operation.

B. Mix of different tactical aircraft types or mutiple aircraft operating in a congested area.

For additional leadplane/ATGS requirements, *refer to Great Basin Mob Guide,*

It is your responsibility to ensure proper supervision is ordered or over the incident as policy dictates.

NOTE: Recognize the key words- *required*, *ordered*, and *over*.

81.3 HELICOPTERS

CWN/Exclusive-Use Contract
There are various "Call When Needed" (CWN) helicopters available. We may order these directly from the vendor. Type I and Type II helicopters need to be ordered through NIFC; Type III helicopters are ordered through regular dispatch channels.

Manager/Fuel Truck
When utilizing helicopters for fires or project work, a helicopter manager will be assigned to manage the helicopter. The ordering unit may be able to furnish the manager; if not, one must be ordered. Depending on the complexity of the mission, additional crewmembers may also be required. Again, check with the ordering unit, as they may be able to furnish the number of crewmembers needed. If not, order the appropriate number of crewmembers.

Helicopters ordered for off-forest use will be dispatched with a manager plus two crewmembers, as per the IHOG, Chart 2-7, on page 2-9.

The other consideration when helicopters are ordered is whether there is a need for a fuel truck. Check with the ordering unit; if in doubt, order the fuel truck unless there is other Jet-A available and the contractor agrees to an alternate arrangement.

81.4 Smokejumpers/Air Cargo

When requested by the IC or Duty Officer order Smokejumpers and/or Air Cargo using the "RESOURCE ORDER-SMOKEJUMPER IA" form. An order will also be placed through ROSS as requested by the host unit. As in all requests the form will be filled out with as much information available, make sure lat/long, air contact (if other aircraft in area), ground contact, and A-A/A-G frequencies are entered. This information can be obtained from the IC and/or PIR.

82 AIR PATROL

Duties/Responsibilities
Air patrol observers will be knowledgeable of the zones they patrol, operation of the aircraft GPS unit, aircraft radios, forest net radios, radio programming, frequencies used, and what channels they can be found on. They will have an adequate supply of the required forms, spare radio batteries, and maps of the area/areas they are going to patrol.

Observers are required to keep track of the pilot's time and inform dispatch when the pilot's flight/duty hours are getting short. He/she will also ensure any passengers aboard are authorized.

Detection/Communication
Although air observers may be called upon to perform a variety of missions, detection is their number one objective. During periods of multiple starts, it is imperative that air observers record fires on the detection report and immediately call dispatch with a size up before moving on to the next fire. Ensure all columns are filled out with accurate information, in addition to the "other info" (which could include campers, wood gatherers, hunters or others in the area, logging operations or logged units nearby, other units or civilians on the scene, etc.).

When there are no new fires to report, air patrol may be asked to assist ground crews, investigate suspected smokes, search specific lightning strike areas, or check a reported smoke from public burning. Observers will also report the paths of impending lightning storms and may have to fly around them or, in some cases, return to base. Regardless of the reason (weather or special mission), any deviation from the established route must be relayed to dispatch.

Prior to taxi, observers will give dispatch a "radio check" on the flight following net. They will inform dispatch of the zone to be covered, observer's name, names of any passengers, and aircraft number. Observers will call again when airborne and, upon entering their dispatch zone, establish radio contact on the appropriate zone frequency. At this time, the 15-minute check-in schedule will begin. Make sure all radio transmissions are clear and concise, and avoid having to repeat your message by gaining altitude and using repeaters as necessary. When leaving one dispatch zone and entering another, ensure both zone dispatchers are notified before changing frequencies.

If at any time radio communication cannot be established, or is lost because of equipment failure, the patrol must be canceled or postponed until the radio can be repaired or replaced and communications are restored.

83 FLIGHT FOLLOWING

When, How, Why
Any time there are agency aircraft assigned to or traversing through the Central Idaho area, CIC will establish radio contact and "flight follow" until the aircraft have landed or are "passed off" to another area dispatch office. Aircraft departing from Central Idaho Airports will contact dispatch on the flight following frequency, stating they are airborne and their destination. Upon entering a dispatch zone, they will contact dispatch on the appropriate zone frequency (depending on north, central or south zone). Once initial contact is established, aircraft will contact dispatch every 15 minutes with a position check.

On most occasions, flight following will be done by zone. During times of multiple aircraft use or fire overload, the initial attack supervisor will assign a person the sole responsibility for flight following and coordination of air space between zones.

If the aircraft fails to check-in after 15 minutes, dispatch will prompt the aircraft for a position check. If there is no response, the dispatcher will continue to call for another 15 minutes. At this time, the dispatcher will contact any personnel on the ground near the vicinity of the last report or other aircraft on the forest for information as to the whereabouts of the aircraft. After reasonable effort to reestablish contact has failed, an aircraft search will be initiated.

83.1 VOR's

When, How, Why
Very High Frequency Omni Range, or VOR's, are used when ordering aircraft, particularly air tankers, smokejumpers or air cargo. You can find the VOR by using the CAN program or by using the old-fashioned way (a compass, string, and map). Most dispatch offices have a large area map just for this purpose. In these days of programmable GPS units and other technology, the VOR is a bit cumbersome; however, if there are no satellites available or the GPS unit is not functioning properly, the VOR is a reliable backup.

83.2 SUNRISE/SUNSET GUIDELINES

Limitations
Most air operations and all single-engine aircraft are limited by sunrise/sunset. The rule of thumb is 30 minutes before sunrise and 30 minutes after sunset. At certain times of the year and in different parts of the country, one may have to tighten these perimeters; like most of the policies we follow, however, they cannot be relaxed.

For certain point-to-point missions when flying in twin-engine aircraft with IFR capabilities from a lighted airport to another lighted airport, agency personnel may fly during night hours. Check with the FAO or aircraft manager when in doubt.

Sunrise/Sunset Charts

The CIC dispatch office will have a chart posted for this area. If you cannot locate one, ask the IA supervisor. If you have access to the Internet, you can find the charts for almost any area by logging on to http://riemann.usno.navy.mil/AA/data/docs/RS_OneYear.html. This site can be very helpful when traveling to other areas, as you can retrieve data for any area in the United States. This data can also be used when dispatching aircraft to other areas of the country.

83.3 AIRPORT GUIDES

Airport Information
There are a variety of ways to access airport information. One of the best available is the "Flight Guide", published by Airguide Publications, Inc. This guide has three volumes, which divide the lower 48 states into the western, central and eastern states. The guide lists airports by name and identifier, gives the phone number, shows the runway layout, gives the lat/long, VOR, elevation, what VHF-AM frequency to tune in, types of fuel available, other services offered at or nearby the airport, how to switch on the landing lights (if they have lights), and a few other odds and ends. There is a copy located in the FAO's office.

There is also a publication put out by NOAA called "Airport/Facility Directory". It has much the same information, plus lists the runway weight limits. Another tool is on the Internet at www.ar-group.com/icaoiata.htm; this site will list the lat/long and airport identifier when a city name is entered. If you do not have access to either of these, you can call information for a specific city and ask for airports; you can then talk to the airport manager or, if the airport is too small to have a full time manager, you can contact the nearest dispatch center.

83.4 AM/FM FREQUENCIES

AM
Aircraft for both air-to-air and air-to-ground as pilots most commonly refer it to, most often uses VHF-AM frequency, or “Victor”. It is used for communicating between aircraft, from aircraft to airports, and from aircraft to helibases.

Notice the key word here is "aircraft". Ground forces seldom, if ever, use the AM band. This allows pilots and air managers a clear frequency without taking away the ability to communicate with ground forces using the FM band.

The most commonly used AM frequencies in the CDC dispatch area are:

122.8	frequency for Salmon airport
122.9	frequency monitored by ***all agency*** aircraft ***(also used by back country airstrips)***
123.825	frequency used for initial attack ***(air-to-air)***
121.5	frequency used for emergencies only!! ***(also used for ELT's)***

FM
VHF-FM, or the FM band, is the one most commonly used to communicate between ground forces and aircraft. This allows aircraft to monitor traffic from ground units on the FM band and other aircraft on the AM band.

There are most often pre-assigned frequencies for dispatch areas, project fires, and initial attack. These can be found in the communications plan, mob guides, or dispatch operating procedures.

For the Central Idaho area we use:

170.125	initial check in/out
168.625	**"Air Guard";** used for initial contact or emergencies only!!

Central Idaho Zone Incident Radio Frequency Plan

The general goal of this plan is as follows:

Fire Detection will be done on the main forest channels (North and South).Initial Attack will be established using the North and South main channels.

Once initial attack is established, the dispatcher shall provide the IC with an IA tactical frequency to use for fire line communications as soon as possible. The IC shall use the North or South main channel for communications back to dispatch. Tactical operations shall be performed on the tactical frequency.

Communications between aircraft and the IC are initiated on the North or South main. After communications are established, air-ground communications shall be moved to the IA tactical frequency or it shall be performed on Tactical Air to Ground (172.325) at the IC's discretion.

Flight following shall be on the North or South main channel during normal activity.

During periods of increased fire activity, the Fire Dispatch will establish flight following on a discreet frequency (Logistics - 170.125). This radio net will have established repeater sites and will be enhanced with portable repeaters that may be deployed as needed.

Dispatch will have access to the National Flight Following frequency (168.650). This frequency will be used as an initial contact frequency between aircraft and dispatch as needed or for itinerant aircraft that flight-follow with Central Idaho dispatch as they pass by the forest. It should not be used for a forest flight following because of its high traffic.

Type III command operations shall be performed on the Scene of Action frequency (168.775). The forest has three fixed repeaters on this channel and it is capable of installing portable repeaters as needed. BLM SOA (173.8625) can also be used for this purpose.

CHANNEL DESCRIPTIONS

NORTH MAIN - Simplex = 172.275/172.275 (Tx/Rx) Repeater = 164.500/172.275 (Tx/Rx)

SOUTH MAIN - Simplex = 169.875/169.875 (Tx/Rx) Repeater = 164.125/169.875 (Tx/Rx)

This channel is to be used by fire detection units for reporting fires to Central Idaho dispatch. It is also to be used by the IC to contact Central Idaho Dispatch.

FLIGHT FOLLOWING (LOGISTICS) -

Simplex = 170.125/170.125 (Tx/Rx) Repeater = 166.5875/170.125 (Tx/Rx)

This channel will be used during periods of increased flight/ fire activity. It will be used by all fixed wing and rotor wing aircraft for flight following with Central Idaho Dispatch. To prevent overloading, aircraft should use this only for 15 minute checks and location checks. When an aircraft detects a fire it is asked to use the North or South Main frequencies for a fire report.

Call "CENTRAL IDAHO FLIGHT FOLLOWING" to contact dispatch on this channel.

Example; Flights for detection purposes will follow on the Flight Following Frequency. If a fire is reported it will be done using North Main Frequency. Dispatch will have a dedicated position performing the flight following role. The separate call sign will enable the appropriate dispatcher to respond. Once over the fire, the aircraft will switch to the appropriate frequency to work for suppression activity.

NATIONAL FLIGHT FOLLOWING - Simplex = 168.650/168.650 (Tx/Rx)

This is a national flight following frequency and should be used by aircraft for flight following as they pass by a forest or as a means of initial contact with the Dispatcher. Local flight following operations should be performed on one of the other channels because of the heavy traffic on this channel. Not all dispatch offices have access to this frequency.

TACTICAL AIR TO GROUND - Simplex = 172.325/172.325 (Tx/Rx)

This frequency is to be used between ground forces and air support for operations such as sling loads or bucket drops. The IC should use this frequency as soon as communications with the aircraft are established. The aircraft will be flight following with the IA IC who will report operation status to Central Idaho Dispatch on the appropriate command channel.

SCENE OF ACTION - Simplex = 168.775/168.775 (Tx/Rx) Repeater = 164.9125/168.775 (Tx/Rx)

Reserved primarily for Type III command operations. It can also be used as needed.

WIDE AREA - Simplex = 163.100/163.100 (Tx/Rx)

COMMON USE - Simplex = 168.350/168.350 (Tx/Rx)

SCNF TACTICAL - Simplex = 171.525/171.525 (Tx/Rx)

One of these frequencies is to be issued by Central Idaho Dispatch to the IA IC as soon as IA is established. The frequency is to be used by the IA crew for tactical communications to relieve radio traffic on the other channels. The IC will scan the North or South Main channels for contact with Salmon Dispatch.

NATIONAL AIR GUARD - Simplex = 168.625/168.625 (Tx/Rx) Tone = 110.9 Hz (Tx)

This is an emergency channel and should not be used except for emergency communications between aircraft and dispatch.

SALMON BLM - Simplex = 163.8875 This is the administrative channel for the Salmon BLM.

BLM SCENE OF ACTION - Simplex = 173.8625/173.8625 Repeater = 172.775/173.8625 (Tx/Rx)

This is a BLM channel reserved for fire activities. It can be issued by the dispatcher as a Type III command net, a crew net, or as needed. It consists of a repeater located on North Baldy mountain 6 miles west of salmon and appears on the Central Idaho Dispatch radio console. The Idaho Falls BLM District uses this channel quite a bit during fire season and it can be busy, especially on the southern end of the forest. Because of this, it should not be used for aircraft.

84 SAFETY

Aviation Safety Concerns
In aviation, as in all of our operations, safety is our number one concern.

Safety cannot be stressed enough, especially in the world of aviation. Accidents and/or incidents can be very costly in terms of both human injury or death and aircraft damage or loss. And unfortunately, in many cases it is both. We have all heard numerous stories and accounts of aviation accidents, many of which have had grave consequences; the lingering fact is most of these could have been prevented. Over 85% of all accidents are caused by human error, and a great percentage of these are caused by deviation from policy!

It is your responsibility to ensure policy is adhered to when dispatching aircraft, receiving aircraft into your zone, and passing off aircraft into other zones. **If the flight is within 5 miles of our border, notify the neighboring agencies**. Flight following, duty and flight limitations, sunrise/sunset limitations, and lead plane/ATGS requirements are in place to prevent accident/incidents. We are here to get the job done, but we need to remember our goal is to get the job done safely.

Do not become so focused on the assigned mission that safety becomes secondary; be safety-oriented first and mission-orientated second. If the mission cannot be accomplished safely, then the mission will be canceled or delayed until all risks are mitigated to an acceptable level.

Do not ask the pilots to perform a mission that is beyond their capability or which will cause them to deviate from policy. Remember our goal and stay tuned to the rules. To quote another safety guru- these are rules we can live by!!

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